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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/994,306	11/26/2001	Troy A. Miller	DP-306204	8684

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EXAMINER

NGUYEN, XUAN LAN T

ART UNIT	PAPER NUMBER
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3683

DATE MAILED: 03/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/994,306

Applicant(s)

MILLER ET AL.

Examiner

Lan Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 January 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 13-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 13-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☒ Other: Attachment #1.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 112*

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 20-23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- In claim 20, last line, it is believed that the claimed feature “a spring that biases the piston” should be --a spring that biases **the valve spool**--.
- In claim 22, line 2, “a valve cup around the neck” should be -- **the** valve cup around **a** neck--.
- In claim 22, line 6, “and annular spacer” should be -- **an** annular spacer--.
- In claim 23, the claimed feature “and wherein the expansible chamber seats the spring to bias the bridge to actuate the actuating pin” is confusing. Does Applicant intend to claim another expansible chamber 108? The expansible chamber of the flexible sleeve 90 does not seat the spring 104 to bias the bridge 101 to actuate the pin 106.

### *Claim Rejections - 35 USC § 103*

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 13-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Watanabe in view of de Carbon.

Watanabe shows a suspension damper, as in the present invention, comprising: a cylinder tube 3 with a fluid chamber; a piston 42, 48, 60, 70 supported in the cylinder tube for back and forth linear translation and dividing the fluid chamber into a compression chamber and a rebound chamber; and a valve 20, 22 including a valve spool movable in a bore in the piston, the valve spool having a body portion with an upper edge and a bridge connected to the body portion and extending at least partially beyond the upper edge of the body portion, and an actuating pin 30 in contact with the bridge to move the valve spool between an open position and a closed position, please see attachment #1. Watanabe lacks a gas cup dividing the cylinder tube into a gas filled gas chamber and a fluid filled fluid chamber. De Carbon shows a suspension damper with a gas cup 3 dividing the cylinder tube 1 into a gas filled gas chamber 5 and a fluid filled fluid chamber above the gas cup 3 in figure 1 to accommodate the changes in the fluid chamber during a compression and a rebound stroke. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Watanabe's suspension damper with a gas cup such as taught by de Carbon to accommodate the changes in the fluid chamber during a compression and a rebound stroke as taught by de Carbon to further providing a more comfortable ride.

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Re: claims 14 and 15, as marked on attachment #1, Watanabe shows the bridge has a lower edge, and a majority of the lower edge extends at least partially beyond the upper edge of the body portion.

Re: claim 16, Watanabe shows the body portion is generally cylindrical.

Re: claims 17 and 18, as marked on attachment #1, Watanabe shows the bridge defines at least one slot adapted to register with an aperture in the bore.

Re: claim 19, Watanabe further shows spring 38 adapted to bias the valve spool to a closed position.

Re: claim 20, Watanabe further shows the actuating pin 30 is actuated by an expansible chamber 76 connected to a sprung mass, wherein the expansible chamber is further connected to a spring 38 that biases the valve spool 20, 22.

5. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Watanabe in view of Gubitz et al.

Watanabe shows a suspension damper, as in the present invention, comprising: a cylinder tube 3, a piston 42, 48, 60, 70 carried within the cylinder tube to actuate an actuating pin 30 in contact with a bridge, please see attachment #1, to control fluid flow between a primary fluid flow path and a secondary fluid flow path. Watanabe lacks an expansible chamber as claimed. Gubitz et al. teach an expansible chamber defined by a flexible sleeve 1b, a rigid skirt 5, a rod guide 108 and an end fitting 113, the expansible chamber connecting a cylinder tube 3 to an unsprung mass 102. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Watanabe's suspension damper to have included an expansible

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chamber such as taught by Gubitz to provide further damping capability to the suspension damper; since it is old and well known in the art of suspension to have an expansible chamber to increase the damping capability and to provide a more comfortable ride.

***Allowable Subject Matter***

6. Claim 22 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

7. Claim 23 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

8. The following is a statement of reasons for the indication of allowable subject matter: It is old and well known in the art of suspension dampening to have a rolling lobe expansible chamber in combination with a fluid dampener. It is also old and well known to have a piston with the structure of first and second valve plates as claimed in claims 22 and 23 as evidenced by Kruckemeyer et al. It is also old and well known to have a valve spool with a bridge and an actuating pin as evidenced by Steer et al. However, it is not a proper combination of combining all of the above into one complete suspension damper, as the inventive suspension damper, without substantial alterations of each teaching prior art.

***Response to Arguments***

9. Applicant's arguments filed 01/08/14 have been fully considered but they are not persuasive. De Carbon is relied upon for the teaching of the gas cup 3 and not the actuating member 21.

***Conclusion***

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

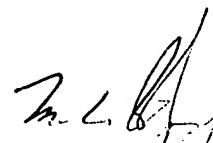
11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lan Nguyen whose telephone number is 703-308-8347. The examiner can normally be reached on M-F, 8 to 4:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Lavinder can be reached on 703-308-3421. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

XLN

  
3/10/2004

**MATTHEW C. GRAHAM**  
**PRIMARY EXAMINER**  
**GROUP 310**